



August 4, 2017

Cynthia Dunn
Supervising Senior Environmental Scientist
CalRecycle
1001 I Street
Sacramento, CA

Re: Comments Regarding Draft Screening Criteria for Determining Priority Packaging Types

Dear Ms. Dunn:

The undersigned organizations appreciate the opportunity to comment on the draft screening criteria for determining priority packaging types released on July 20, 2017. The request for comment on the criteria for screening packaging types states that “the Department is choosing to evaluate which mandatory policy models (e.g. Extended Producer Responsibility, etc.) and instruments (e.g. minimum content, etc.) might be best suited to increasing collection and recovery of specific packaging types.” We disagree with this narrow framing for the policy (e.g. to increase collection and recovery) and believe that it is inconsistent with the mandate established by the Integrated Waste Management Act (IWMA) of 1989, which provides in Public Resources Code Section 40051 that CalRecycle and local agencies must prioritize waste management practices that follow this order of priority:

- (1) Source reduction.
- (2) Recycling and composting.
- (3) Environmentally safe transformation and environmentally safe land disposal, at the discretion of the city or county.

Furthermore, the Act requires that the state and local governments should:

...Maximize the use of all feasible source reduction, recycling, and composting options in order to reduce the amount of solid waste that must be disposed of by transformation and land disposal.

The Department must establish policies that promote the priorities set for in the IWM and should establish criteria for selecting packaging types to be screened for source reduction and recycling and composting, as the top criteria. CalRecycle ought to be asking:

- (1) what packaging types are ripe for source reduction?
- (2) what packaging types are a priority for increasing recycling and composting?

Our comments, therefore, respond to these two questions.

I. CRITERIA TO USE IN SELECTING PACKAGING FOR SOURCE REDUCTION:

1. Prevalence. Reducing prevalence leads to reduction of all the other environmental and public health impacts associated with packaging, therefore, we believe the Department should use prevalence as the primary screen. However, prevalence should not be measured by weight as light-weighting packaging would be the response, thereby increasing the transition of packaging to plastics. Transitioning to plastics may decrease the weight of packaging, but it increases the water quality impacts by increasing the quantity of plastics entering the marine environment. Therefore, for source reduction, we suggest that units of packaging (i.e. number of packaging items) or perhaps volume are better measures. CalRecycle should conduct both a unit based and a volumetric measurement of the waste stream to understand what materials are filling up landfills and contributing to large quantities of packaging littering streets, storm drains, and waterways. Litter and beach debris studies use units.

2. Source Reduction Potential. An evaluation of the packaging waste stream by number of units and with a granular break-down of packaging uses (i.e. is it used for take-out food delivery, for transportation of consumer goods, for convenience food or drinks) permits an evaluation of the source reduction potential. For example, in Clean Water Fund's litter survey conducted in 2011, the littered items were categorized by product usage types. This enabled the data to be evaluated for source reduction potential, showing for example, that 13% of the street litter could be reduced by replacing single use take out beverage containers with reusable beverage containers and 27% could be reduced by replacing take-out food containers with reusables.¹ CalRecycle should hold a workshop on source reduction potential to solicit input on the many ways to achieve packaging source reduction.

3. Environmental Impacts- Water Quality and Greenhouse (GHG) emissions. While these are certainly priority environmental impacts, in a source reduction approach, we would place them in the rank of the secondary screen, after prevalence. However, the appropriate data sets are not yet available. For **Water Quality**, TMDL data, and other data collected by MS4s pursuant to regional stormwater discharge and NPDES permits issued to municipalities pursuant to section 402(p) of the Federal Clean Water Act do not include data about specific packaging types. The data is solely trash quantities, measured by weight. While the data from Coastal Cleanup Day in California might be the best available / existing data, it is not solely a measure of packaging generated in California as much of it is ocean litter from ships and other countries, like Japan and Southeast Asia. It would be better if CalRecycle worked with the Coastal Conservancy and State Water Board to design a study that measures specific types of packaging that is prevalent in street litter that enters storm drains, as well as with the Southern California Coastal Water Research Program to design a proper beach and coastal water quality program to identify packaging that enters inland waterways and ends up in the coastal and beach environment.

For **GHG emissions**, CalRecycle should commission a study of the GHG emissions reduction potential of minimizing single use packaging and transitioning to refillables and reusables. Clean Water Action/ Clean Water Fund has developed a GHG calculator for most disposable food and beverage packaging products, based on EPA's Warm Model, to assess the GHG emissions reduction potential for reducing the quantity of single use food and beverage packaging products. This calculator needs to be expanded to be able to compare the emissions associated with transitioning to re-usable alternatives.

4. Public Health Impacts. Packaging, particularly food and beverage packaging, is increasingly being recognized as a threat to public health. A recent paper, "Fluorinated Compounds in US

¹<http://www.cleanwateraction.org/files/publications/ca/TakingOuttheTrash%20monitoring%20results.pdf>

Fast Food Packaging,”² found that desert and bread wrappers, sandwich and burger wrappers, and paperboard used in fast food packaging have a high prevalence of carcinogenic and endocrine disrupting fluorinated substances. The authors conclude that PFAS are highly persistent synthetic chemicals used in grease resistant food packaging that are known to migrate into food and beverages and have been associated with cancer, developmental toxicity, immunotoxicity, and other health effects. Indirect food additives are not the only health concern associated with packaging. Increasing evidence shows that plastics associated with single use products and packaging are entering the food chain. There is evidence that everything from seafood, to salt, to processed food and beverages (sugar and beer), contain microplastics. In addition, microplastics are becoming prevalent in indoor air.³

5. Increasing or Steady Usage Trends. This is an important criterion as it helps to know where the producers are headed. Certainly, there has been an increase in flexible packaging, aseptic, and multi-layer laminates. These are all less recyclable and single use products that have high levels of environmental impact. Mandatory packaging policies should take aim at market trends that are likely to drive against source reduction and recycling.

II. CRITERIA TO USE IN SELECTING PACKAGING FOR RECOVERY AND RECYCLING

Mandatory policies for packaging should ensure that end of life management for packaging drives down the amount of packaging going to landfill and transformation, per the IWMA. The program should encourage the use of materials that can be recycled in a closed loop, in order to promote a circular economy. Criteria for prioritizing packaging for recycling, should focus on the following.

1. **Prevalence** - Does the packaging/ product category contribute significantly to the overall waste stream? If a packaging type is the most prevalent in the waste stream and it's not recyclable, then mandatory packaging policy ought to ensure that it is first source reduced (i.e. minimized, transitioned to durable, reusable, or refillable) and then the products that are not minimized, or reused or refilled, should be recyclable. The metrics for assessing prevalence – i.e. weight-based- are less of a concern when viewing prevalence through a recycling lens. Paper and plastic are most prevalent in the waste stream, based on weight. Establishing targets for recycled content and recyclability for very prevalent packaging materials should drive a change to materials that are more recyclable.

2. **Recyclability**- This is an important criterion in determining a mandatory policy to increase recycling. Recyclable packaging should not be ending up in landfill or transformation, it wastes valuable resources and drives against achieving a circular economy. All packaging should be characterized based on whether it is recyclable and sellable on the global market. For example, China no longer accepts many recyclable materials- primarily plastics- that would be bailed and shipped from California, and now other countries in Southeast Asia are taking in materials. Materials consumed and disposed of in California should not negatively impact developing countries from externalized pollution. There should be high targets for recycling of each material type, as well as recycled content targets to develop the marketplace for the recycled materials and ensure that recycling is closed loop.

² *Environ. Sci. Technol. Lett.*, **2017**, 4 (3), pp 105–111

³ <http://pubs.acs.org/doi/abs/10.1021/acs.est.7b00423?mi=aayia761&af=R&AllField=nano&target=default&targetTab=std>

3. **Greenhouse Gas Impacts-** Materials with high GHG impacts should absolutely be prioritized. If materials have high GHG impact, they should be targeted for recycling since recycling generally lowers GHG emissions.

4. **Increasing or Steady Usage.** Non-recyclable materials that are projected to have steady or increased usage should be targeted since these materials threaten to impede progress towards a circular economy.

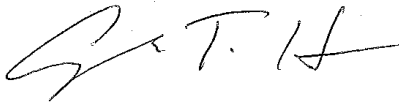
5. **Contamination of Material.** If materials get contaminated in the sorting and collection process, this impedes recycling. It should be a priority to reduce contamination from single stream and other causes. Furthermore, if materials cause contamination of recycling systems, this needs to be addressed.

Thanks for soliciting feedback. We look forward to the upcoming workshop in September.

Sincerely,



Samantha Sommer
Waste Prevention Program Manager
Clean Water Action / Clean Water Fund



Angela T. Howe, Esq.
Legal Director
Surfrider Foundation



Leslie Mintz Tamminen
Ocean Program Director
Seventh Generation Advisors